# Lab Assignment & Solution

# Loops

**PY-03-LS3
Loops with Conditions**

# Lab Objective

Understand different ways to work with *while* loops to control the program flow.

# Lab Mission

Practice creating code using *while* loops and conditions.

# Lab Duration

10–20 minutes

# Requirements

- Basic knowledge of loops and conditions

# Resources

- Environment and tools
    - Windows, Linux, MacOS
        - Python 3
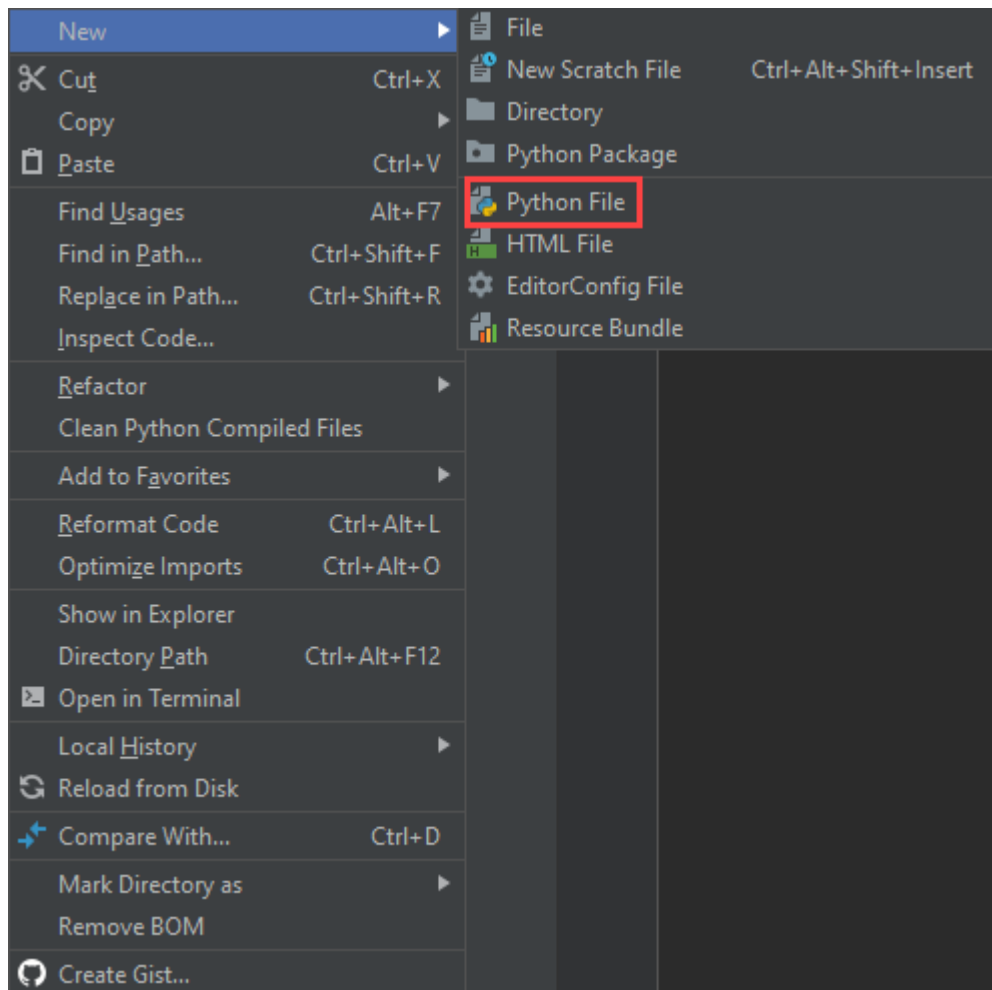        - PyCharm

# Textbook References

- Chapter 3: Loops
    - Section 1: For & While

# Lab Task: *While* Loops & Conditions

In this lab task, you will continue to practice how to work with **while** loops and conditions, such as **if-else**, in loops.

**1**    Create a new Python file in PyCharm.
Right-click the project you created previously, and select **New → *Python File***.



**2**    Create a variable to be used as a counter and set its value to zero, since it will be the counter's starting point.

```
counter = 0
```

**3**    Create a *while* loop with a condition that checks if the counter's value is less
than 10.

```
counter = 0

while counter < 10:
```

**4**    In the loop, add +1 to the counter with each iteration.

```
counter = 0

while counter < 10:
    counter += 1
```

**5**    Create an *if* statement that checks if the counter equals 6.
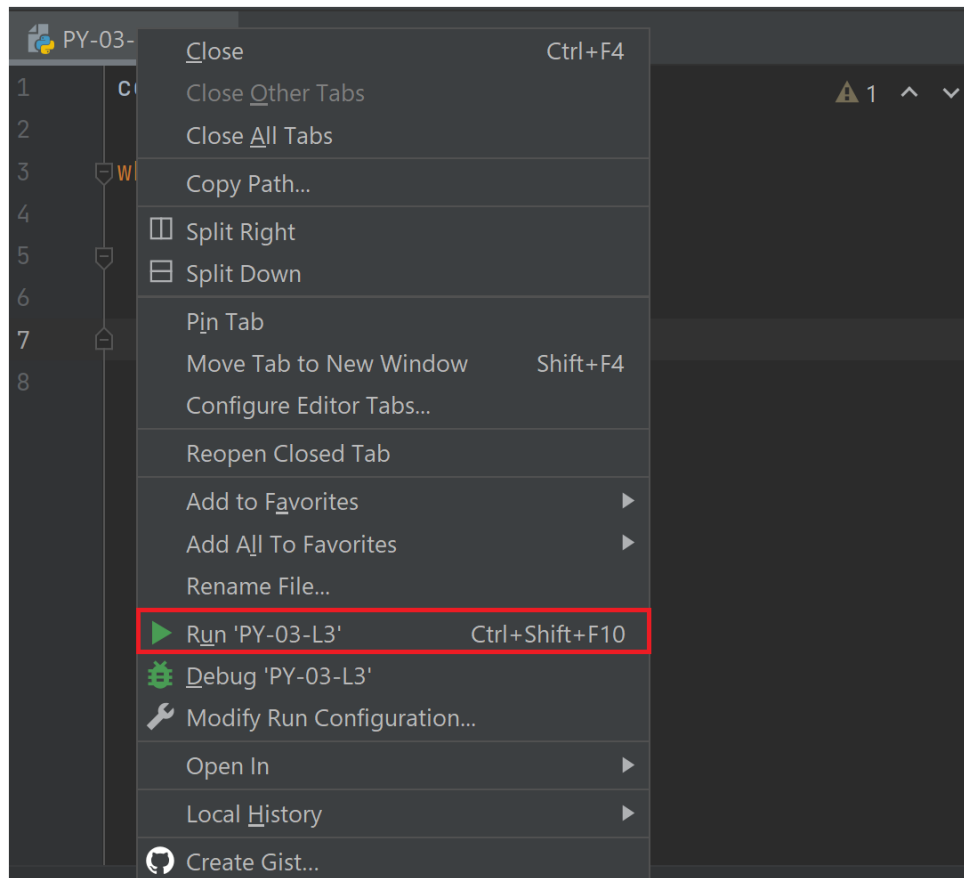
```
counter = 0

while counter < 10:
    counter += 1
    if counter == 6:
```

**6**    If the counter equals 6, print "Found!" and exit the *while* loop.

```
counter = 0

while counter < 10:
    counter += 1
    if counter == 6:
        print("Found!")
        break
```

**7**   Right-click the file of the lab and execute the **_Run 'File name'_**.



**8**   The result of the following program should appear.

**9**   If the counter does not equal 6, use an ***else*** statement to print "Check" and the current value.

```python
counter = 0

while counter < 10:
    counter += 1
    if counter == 6:
        print("Found!")
        break
    else:
        print("Check {}".format(counter))
```